MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 3, 2021/2022

BAE2014 – SEMINAR IN ANALYTICAL ECONOMICS

(All Sections/Groups)

15 AUGUST 2022
9.00 a.m. – 11.00 a.m.
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This Question paper consists of **SIX** pages excluding the cover page.
2. Attempt **ALL FOUR** questions. The distribution of the marks for each question is given.
3. Please write all your answer in the Answer Booklet provided.

Answer all questions in the answer booklet provided.

Question One (25 marks)

Passage 1

Financial inclusion issues are a socio-economic challenge to policymakers and financial markets and institutions to ensure that individuals benefit from access to formal financial services. Financial inclusion is seen to drive economic growth and guarantees the consumption and expenses of individuals, families, or firms, especially in low-income countries. However, the World Bank (2018) has reported that close to one-third of adults were financially excluded, where they do not have bank accounts in the official financial system. Moreover, even as financial inclusion is on the rise globally, there is still an estimated 31 percent of adults (1.7 billion adults) worldwide who cannot access a basic transaction account (UFA, 2020).

There is no doubt that financial inclusion is one of the main economic growth drivers. Empirical findings by Sethi and Acharya (2018) revealed a positive and long-run relationship between financial inclusion and economic growth across 31 countries. Their panel causality test showed a bi-directional causality between financial inclusion and economic growth. Van et al. (2019) found that using an econometric panel technique supported a positive relationship between financial inclusion and economic growth. A stronger connection was found for countries with low income and a low degree of financial inclusion. However, this study was limited to the emerging markets with no application of institutional controls in the growth model.

In comparison, Mitchell and Scott (2019) analysed how Argentina's government used financial inclusion to generate significant public revenue in taxation. The government used the facility to draw more people into the formal banking system. With more consumption in the formal markets, consumers tended to use less cash and increased their credit and debit card usage, which the government could efficiently tax. Ozili (2020) shows that greater financial inclusion also has implications for pro-cyclicality. In a good economic condition, countries with greater financial inclusion tend to experience higher levels of financial intermediation and local economic activities, which positively affects the economy. Sukmana and Ibrahim (2018) found evidence that financial inclusion serves as an inequality mitigating factor only when income inequality of a country is low.

Recent studies by Nizam et al. (2020) found a non-monotonic relation between the role of financial inclusiveness and economic growth using cross-section data. Their principal findings revealed a threshold effect of the financial inclusiveness-growth nexus, which means that financial inclusiveness exhibits a non-monotonic positive relation with economic growth. Thus, the main innovation of this present study is as follows. First, we use the dynamic panel threshold to detect two-dimension effects, namely, time and country-specific effects. Therefore, technological change can be measured by the time dimension of the panel data. In contrast, cross-sectional data only contains one dimension and cannot detect the dynamic effect of the variables. Thus, this study provides new

Continued...

evidence of the impact of financial inclusion on growth using a dynamic panel threshold. Second, this new estimation technique is more appropriate in understanding the dynamic and non-linear relationship between financial inclusiveness and growth, and also has the advantage of removing multi-collinearity and controlling cross-country heterogeneity. Third, we explore whether there exist threshold levels of financial inclusion in the IFI-growth nexus by splitting the sample according to less developed and emerging countries. The threshold analysis is necessary to identify the optimal level of financial inclusion that has a favourable effect on economic growth.

This study contributes to the existing literature in three dimensions. First, it analyses the effect of the financial inclusion-economic growth nexus in a non-linear perspective (non-monotonic relationship) using the dynamic panel threshold method proposed by Kremer et al. (2013). This study is pivotal for the government in designing its financial sector to support the economic growth agenda. Second, this study constructs the new IFI Index for each country by considering three elements: banking penetration, banking services availability, and financial services usage. This new IFI Index could be the best to represent the level of financial inclusiveness across countries. It can provide the most accurate estimation results for further understanding of the financial inclusiveness-growth nexus. Third, this present study focuses on the current period after the Global Financial Crisis (GFC), spanning from 2010 until 2017 from the sample of emerging and less-developed countries.

Source: Abdul Karim, Z., Nizam, R., Law, S. H., & Hasan, M. K. (2022). The title of this article is not provided due to the nature of the exam question. Finance Research Letters, 46(A), Article e102364.

Based on **Passage 1**, answer the following questions.

(a) Find a suitable title for **Passage 1**. The title should convey the main findings of the research and should be specific, concise, complete, and able to attract reader's attention. (5 marks)

(b) Analyse the author's description of the research problem in **Passage 1**. (8 marks)

(c) Identify the research objective that is most likely studied by the author. (4 marks)

(d) Determine four characteristics of good economic research questions. (8 marks)

Continued...

Question Two (25 marks)

(a) Making sense of published research is part of the process of conducting research. Identify **five** questions to ask when you review past research literatures. (15 marks)

(b) Scholars who wish to publish their research have to follow a systematic analytical path. Determine the steps involved in an econometric analysis of economic models. (10 marks)

Question Three (25 marks)

Refer to the model specification **(Eq. 1)** and estimation results **(Eq. 2)** to answer the following questions.

The starting salary for fresh graduates of economics school (salary) is determined by

$$\log(\text{salary}) = \beta_1 + \beta_2 \text{GPA} + \beta_3 \log(\text{libvol}) + \beta_4 \log(\text{cost}) + \beta_5 \text{rank} + u \quad \ldots \quad \textbf{(Eq. 1)}$$

where
GPA = the college Grade Point Average for the class,
libvol = the number of volumes in the economics school library,
cost = the annual cost of attending economics school, and
rank = the ranking of an economics school (with rank=1 being the best).

(a) Justify why we expect $\beta_5 \leq 0$. (3 marks)

(b) Justify the expected signs for the parameters of β_2, β_3, and β_4. (6 marks)

(c) The estimated equation based on the **Eq. (1)** produced the following result (standard errors are in parentheses):

$$\log(\widehat{\text{salary}}) = \underset{(0.32)}{8.31} + \underset{(0.041)}{0.248\text{GPA}} + \underset{(0.0054)}{0.095 \log(\text{libvol})}$$

$$+\underset{(0.041)}{0.038 \log(\text{cost})} - \underset{(0.0054)}{0.0033 \text{rank}} \qquad \textbf{(Eq.2)}$$

$n = 136$, $R^2 = 0.842$ Jarque-Bera statistic = 4.05
$F = 173.196$

(i) Determine the predicted difference in salary for schools with a median GPA difference by one point, ceteris paribus (Report your answer in percentage). (4 marks)

Continued...

(ii) Analyse if the error term is normally distributed [Hint: Chi-square critical value = 5.991]. (4 marks)

(iii) Debate the relationship between GPA and the salary [Hint: t-critical value = ±1.98]. (4 marks)

(iv) Examine if the variations in all the explanatory variables explain the variation in the dependent variable [Hint: F-critical value = 2.45]. (4 marks)

Question Four (25 marks)

Passage 2

Food price rise accelerated Malaysia's April 2022 y-o-y inflation to 2.3%

KUALA LUMPUR (May 25): Malaysia's inflation, as measured by the consumer price index (CPI), increased 2.3% in April 2022 from a year earlier, led by higher food prices, according to the Department of Statistics Malaysia (DOSM) on Wednesday (May 25, 2022).

The increase in food inflation, which contributed the highest [weightage] to the overall weight of [the] CPI, remained to be a major contributor to inflation.

"Inflation for this group increased 4.1% in April 2022 as compared to the same month of the previous year," DOSM chief statistician Datuk Seri Dr Mohd Uzir Mahidin said in a statement.

Mohd Uzir said food inflation in April 2022 was higher year-on-year (y-o-y) at 4.1% with 89.1% of food items in the CPI's food and non-alcoholic beverages group recording increases.

"Among other CPI components, the restaurants and hotels segment rose 3.2% while the transport portion climbed 3%," he said.

The increase in food & non-alcoholic beverages group was largely due to an increase in the component for food away from home which [increased] 4.4% as compared to 4% as recorded in March 2022. For instance, both satay and rice with side dishes recorded higher increase of 7.1% (March 2022: 6.6%).

"Cooked vegetables and cooked beef increased 6.9% (March 2022: 5.7%) and 5.7% (March 2022: 5.2%) respectively. Meanwhile, food at home which refers to raw materials for cooking preparation at home increased 4.1% as compared to a year ago," he said.

Continued...

According to the DOSM, the CPI's combined milk, cheese and eggs group increased at a faster pace of 7.2% in April 2022 compared with 7% in the previous month.

The DOSM said the meat and vegetables groups increased 6.2% and 4.5% respectively while the combined fish and seafood group climbed 3.8%.

The increase in vegetable prices was due to weather uncertainties that have affected the maturity of vegetables and caused a decline in supply in the market.

"In addition, the [increase] in the price [of vegetables] was attributed to the increase [in] fertiliser prices, logistics costs and labour shortages at agricultural sites," the DOSM said.

The DOSM said the government between April 26, 2022 and May 10, 2022 implemented the maximum price scheme for goods in conjunction with the recent Hari Raya Puasa celebration.

The implementation of the scheme is expected to ease Malaysia's inflation in May 2022, especially for the CPI's food group, according to the DOSM.

On the CPI transport component's y-o-y 3% rise in April 2022, the DOSM said the rise was largely due to the increase in the average price of unleaded petrol RON97 at RM3.84 a litre from RM2.55 a year earlier.

"This was in line with the 63.3% increase in Brent crude oil prices to US$105.78 per barrel in April 2022," the DOSM said.

On a monthly basis, the CPI increased 0.2% in April 2022 from March 2022, according to the DOSM.

Malaysia's y-o-y inflation of 2.3% in April 2022 accelerated from 2.2% in March 2022.

The country's CPI increased 2.2% in March 2022 from a year earlier, mainly driven by the 4% increase in the CPI's food and non-alcoholic beverages segment as prices of food items including chicken and vegetables spiked more than 10%, according to the DOSM.

Source: Retrieved from https://www.theedgemarkets.com/article/food-price-rise-accelerates-malaysias-april-2022-yearonyear-inflation-23.

Based on **Passage 2**, assume that you would like to conduct research for the case of Malaysia. Your research will be entitled "*The Relationship between Macroeconomic Variables, Inflation Rate, and Sustainable Economic Growth*".

Continued...

(a) Identify **three** variables that will be used in the study. (6 marks)

(b) Ascertain the data that can be used to proxy the variables you suggested in (a). (6 marks)

(c) Determine your search strategy for finding your data. (8 marks)

(d) Based on the title suggested above, determine the types of data and analysis that you will employ to conduct the study. (5 marks)

End of Page